

Transportation, Energy, and the Environment

Section A

U.S. and Transportation Sector Energy Consumption

Table 4-1 Overview of U.S. Petroleum Production, Imports, Exports, and Consumption (Million barrels per day)

	1960	1965	1970	1975	1980	1985	1990	1995	1996 ^R	1997	1998	1999
Domestic production												
Crude oil ^a	7.04	7.80	9.64	8.38	8.60	8.97	7.36	6.56	6.47	6.45	^R 6.25	^E 5.93
Natural gas plant liquids	0.93	1.21	1.66	1.63	1.57	1.61	1.56	1.76	1.83	1.82	^R 1.76	1.83
Total^b	7.96	9.01	11.30	^R10.05	^R10.21	^R10.64	^R8.99	^R8.63	^R8.61	^R8.61	^R8.39	^R8.14
Gross imports												
Crude oil ^c	1.02	1.24	1.32	4.11	5.26	3.20	5.89	7.23	7.51	8.23	^R 8.71	8.59
Petroleum products ^d	0.80	1.23	2.10	1.95	1.65	1.87	2.12	1.61	1.97	1.94	^R 2.00	1.96
Total	1.81	2.47	3.42	6.06	6.91	5.07	8.02	8.84	9.48	10.16	^R10.71	10.55
Exports	0.20	0.19	0.26	0.21	0.54	0.78	0.86	0.95	0.98	1.00	^R0.95	0.94
U.S. net imports^e	1.61	2.28	3.16	5.85	6.37	4.29	7.16	7.89	8.50	9.16	^R 9.76	9.61
U.S. petroleum consumption	9.80	11.51	14.70	16.32	17.06	15.73	16.99	^R 17.73	18.31	18.62	^R 18.92	19.39
By the transportation sector	5.14	6.04	7.78	8.95	9.55	9.85	10.97	^R 11.73	11.96	12.10	12.47	12.75
Transportation petroleum use as % of domestic petroleum production	64.6	67.0	68.8	^R 89.1	^R 93.5	^R 92.6	^R 122.0	^R 135.9	^R 139.1	^R 140.5	148.6	156.6
Transportation petroleum use as % of domestic petroleum consumption	52.4	52.5	52.9	54.8	56.0	62.6	64.6	65.9	^R 65.3	^R 65.0	^R 65.9	65.8
World petroleum consumption	21.34	31.14	46.81	56.20	63.07	60.10	65.99	^R 69.93	71.52	73.01	^R 73.64	U
U.S. petroleum consumption as % of world petroleum consumption	45.9	37.0	31.4	29.0	27.0	26.2	25.7	25.5	25.6	25.5	^R 25.7	U

^a Includes lease condensate.^b Includes crude oil, natural gas plant liquids, and other liquids.^c Includes imports for the Strategic Petroleum Reserve, which began in 1977.^d Beginning in 1985, motor gasoline blending components and aviation gasoline blending components are included.^e Net imports = imports minus exports.**NOTE:** Numbers may not add to totals due to rounding.**SOURCES:**

Domestic production, imports, exports, and U.S. petroleum consumption: 1960-70: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review* 1997, DOE/EIA-0384(97) (Washington, DC: July 1998), table 5.1.

1975-99: Ibid., *Monthly Energy Review*, DOE/EIA-0035 (03/99) (Washington, DC: March 2000), tables 3.1A (domestic production); 3.1B (imports and exports); and 10.2 (U.S. petroleum consumption).
1999: Ibid., *International Energy Database*, December 1999, Table 12.xls, available at Internet site www.eia.doe.gov/emeu/international/petroleum.htm#ConsumptionA, as of Dec. 8, 2000.

World petroleum consumption: 1960-96: Ibid., *Annual Energy Review* 1997, DOE/EIA-0384(97) (Washington, DC: July 1998), table 11.9.

1999: Ibid., *International Energy Database*, December 1999, Table 1.2, available at Internet site www.eia.doe.gov/emeu/international/petroleum.htm#ConsumptionA, as of Dec. 8, 2000.

KEY: E = estimate; R = revised; U = data are not available

Table 4-2 U.S. Consumption of Energy from Primary Sources by Sector (Quadrillion Btu)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
Energy consumption												
Transportation	10.56	12.40	16.06	18.21	19.66	20.02	22.49	^R 23.92	^R 24.47	^R 24.77	^R 25.3	25.89
% of total	24.1	23.5	24.2	^R 25.8	25.9	^R 27.1	27.7	^R 27.3	^R 27.1	^R 27.2	^R 27.7	28
Industrial	16.26	19.24	21.92	20.39	21.07	17.67	19.62	^R 21.27	^R 21.97	^R 22.07	^R 21.68	21.96
% of total	37.1	36.5	33.0	28.9	27.7	23.9	24.1	^R 24.3	^R 24.3	^R 24.3	^R 23.8	23.7
Residential and commercial	8.75	10.00	12.14	11.60	10.72	9.78	9.55	^R 10.31	^R 10.96	^R 10.70	^R 9.85	10.17
% of total	20.0	19.0	18.3	16.4	14.1	13.2	11.8	^R 11.8	^R 12.1	^R 11.8	^R 10.8	11
Energy Input at electric utilities	8.19	11.01	16.27	20.35	24.51	26.52	29.62	^R 32.06	^R 33.01	^R 33.43	^R 34.4	34.49
% of total	18.7	20.9	24.5	28.8	32.3	35.8	36.4	^R 36.6	^R 36.5	^R 36.7	^R 37.7	37.3
Total	43.80	52.68	66.43	70.55	75.96	73.98	^R81.29	^R87.56	^R90.42	^R90.98	^R91.23	92.52
Percentage of primary demand met by petroleum												
Transportation	96.0	95.7	95.3	96.7	96.7	97.4	^R 97.0	97.0	97.0	96.9	^R 97.4	97.5
Industrial	35.4	35.3	35.5	^R 39.9	45.2	44.2	42.4	^R 40.5	^R 41.4	42.2	^R 42.2	43.1
Residential and commercial	39.8	38.6	35.4	32.8	28.3	^R 25.8	^R 22.8	^R 20.1	^R 20.1	20.0	^R 20.0	20.4
Electric utilities	6.7	6.7	13.0	15.6	10.7	4.1	4.2	2.1	2.2	2.5	3.4	2.7

NOTES: The data for residential, commercial, and industrial sectors include only fossil fuels consumed directly. Most renewable fuels are not included. The data for the transportation sector includes only fossil and renewable fuels consumed directly. The data for electric utilities includes all fuels (fossil, nuclear, geothermal, hydro, and other renewables) used by electric utilities. Due to a lack of consistent monthly historical data, some renewable energy resources are not included in this table. The totals in table 4-4 are the best numbers for total U.S. energy consumption from all sources.

Numbers may not add to totals due to rounding.

SOURCES: 1960-70: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1990*, DOE/EIA-0394(90) (Washington, DC: May 1991), table 4.

1975-99: Ibid., *Monthly Energy Review*, Internet site www.eia.doe.gov/pub/energy/overview/monthly.energy/ as of Apr. 27, 2000, tables 2.2, 2.3, 2.4, 2.5, and 2.6.

KEY: Btu = British thermal unit; R = revised

Table 4-3 Domestic Demand for Refined Petroleum Products by Sector (Quadrillion Btu)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
Transportation	10.13	11.87	15.31	17.61	19.01	19.50	21.81	^R 23.20	^R 23.74	^R 24.00	^R 24.64	25.23
Industrial	5.75	6.79	7.79	8.15	9.53	7.81	8.32	8.62	9.10	9.31	^R 9.15	9.46
Residential and commercial	3.49	3.87	4.31	3.81	3.04	2.52	2.17	2.08	2.20	2.14	^R 1.97	2.07
Electric utilities	0.55	0.73	2.12	3.17	2.63	1.09	1.25	0.66	0.73	0.82	^R 1.17	0.94
Total petroleum demand	19.92	23.26	29.53	^R32.73	^R34.20	30.92	33.55	^R34.55	^R35.76	^R36.27	^R36.93	37.71
Transportation as % of total	50.9	51.0	51.8	53.8	55.6	63.1	65.0	67.1	66.4	66.2	^R 66.7	66.9

NOTE: Transportation's share of U.S. petroleum demand in this table differs slightly from table 4-1 because this table takes into account differences within sectors in the use of various grades of petroleum-based fuel that have different Btu content per unit volume.

SOURCES: 1960-70: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1997*, DOE/EIA-0384(97) (Washington, DC: July 1998), tables 2.1, 5.12b, and A3.

1975-99: Ibid., *Monthly Energy Review*, Internet site www.eia.doe.gov/gov/pub/energy.overview/monthly.energy/ as of May 8, 2000, tables, 1.4, 2.3, 2.4, 2.5, and 2.6.

KEY: Btu = British thermal unit; R = revised